

the determination of microscopic subtleties. If the observer's eye be not constantly aided and educated with his hands, he is almost certain to be misled; though few persons, as yet, seem to be aware of the fact; and to their ignorance may be attributed not a few of the errors which appear in print, even at the present day. To those who practically acknowledge the justice of these remarks, and to them only, the preceding memoir is now submitted.

W. WILSON.

Warrington, Nov. 12, 1843.

Notices of some BRAZILIAN FUNGI. By the Rev. M. J. BERKELEY, M.A., F.L.S.; *being a sequel to the Contributions towards a FLORA OF BRAZIL*, by G. GARDNER, ESQ.

(*With a Plate. TAB. XXIV.*)*

1. *Agaricus (Lepiota) cepæstipes*, Sow. *Fr. Ep.* p. 17.

On sandy ground. Oeiras, Prov. of Piauhy.

Resembling very closely the form represented in *Fl. Dan.* t. 1798. The color of the whole, when gathered, was sulphur-yellow. The gills are truly remote; the stem, which is equal and slender, not sunk into the pileus; the ring erect and persistent, and the scales of the pileus strongly marked. Sporidia yellow, elliptic, rather large, nearly colourless when seen by transmitted light.

2. *A. (Tricholoma) prægrandis*, n. s. pileo convexo umbilicato demum expanso viscidulo glabro valde carnososo; stipite valido deorsum incrassato bulboso solido intus fibroso, extus subcartilagineo; lamellis adnatis confertis postice leviter rotundatis, antice falcatis.

Grassy places. Minas Geraes. Oct. 1840.

Pileus 8-9 inches in diameter, convex, umbilicate even

* By an oversight, the numbering on the following plates is erroneous; and the subscribers are requested to correct them. Tab. xxii should be xxi. —Tab. xx., xxii., —Tab. xxi., xxiii., —and Tab. xxiii. should be xxiv.

when of a considerable size, at length expanded, quite smooth, soiled with portions of dead grass, &c., adhering to it; flesh thick.

Stem 7-8 inches high, $1\frac{1}{2}$ inch thick in the centre, $2\frac{1}{2}$ -3 inches thick at the base, which is incrassated and bulbous, somewhat rooting, and retaining a quantity of earth round it, by means of its cottony mycelium, solid, stringy within, externally smooth, subcartilaginous.

Gills moderately broad, attached and slightly rounded behind, falcate in front. The colour of the whole in a dry state is a dull umber; the stem and gills being darker. Unfortunately, no notes were preserved of its condition when gathered.

This magnificent species has the habit of *Ag. grammopodius*, which, however, it exceeds in size. It belongs, with it, to the section *Tricholomata Hygrophana* of Fries' *Epicrisis*. Like too many exotic species, it is necessarily imperfectly defined, but it is too remarkable to omit altogether.

3. *A. (Clitocybe) rheicolor*, *Berk. Ann. of Nat. Hist.*, vol. 2. p. 376.

On a rotten tree. Minas. Oct. 1840.

4. *A. (Marasmius) ferrugineus*, n. s., pileo membranaceo convexo plicato croceo-ferrugineo, stipite gracili torto cinereo-fusco glabro nitidiusculo; basi orbiculari pilosiusculo; lamellis pallidis, interstitiis venosis postice attenuatis.

On the bark of a rotten tree. Minas.

Pileus $1\frac{1}{2}$ -3 lines broad, convex, membranaceous, plicate, yellow, ferruginous, extremely minutely wrinkled when dry, so as to appear pulverulent. Stem $\frac{1}{2}$ - $\frac{3}{4}$ of an inch high, $\frac{1}{8}$ of a line thick, cinereous-brown, compressed, twisted, shining, smooth with a glaucous tinge, which arises from extremely minute globules, visible only under a high magnifier; attached by a little downy bulb. Gills pallid, few, attenuated behind, nearly free, with broad veiny interstices. The exact form of the gills and the mode of attachment are scarcely determinable.

This charming little species is allied very closely to

Ag. hæmatocephalus, Mont. and *A. atrorubens*, Berk., but is very distinct from either, being a much smaller species, with a differently coloured pileus. The stem is precisely like that of *Ag. hæmatocephalus*. The nearest ally amongst European species is, perhaps, *Ag. juncicola*. *Ag. bambusinus*, Fr. is too imperfectly described to form an accurate opinion as to its affinities.

5. *Ag. (Marasmius) mitiusculus*, n. s., pileo plano-umbilicato albido rugoso; stipite gracili cinereo-velutino supra incrassato glabrescente rufo; lamellis pallidis, acute decurrentibus, interstitiis plerumque lævibus.

On rootlets with the foregoing species. Minas.

Pileus $\frac{1}{4}$ of an inch broad, plane depressed and umbilicate, or even somewhat infundibuliform, dirty white, rugose.

Stem about $\frac{3}{4}$ of an inch high, $\frac{1}{3}$ of a line thick, not rooting, but attached exactly as in *Ag. stipitarius*; clothed with very short cinereous velvety down, slightly incrassated above, where it is at length smooth and rufous.

Gills pallid, acutely decurrent, with their interstices, for the most part, even.

Allied to *Ag. (Marasmius) fætidus*. The specimens are few, and not in so good condition as might be wished, but the characters are so marked, that there will be little difficulty in distinguishing this species.

6. *Ag. (Omphalia) Gardneri*, Berk. in Hook. Journ. of Bot., vol. 2. p. 427.

On the leaves of a palm called Pindoba. Natividade. Province of Goyaz. Dec. 1839.

7. *Ag. (Omphalia) spaniophyllus*, n. s., membranaceus; pileo reniformi brunneo glabro; stipite brevissimo laterali pulverulento brunneolo; lamellis 3-6 ventricosis luteo-pallidis, interstitiis lævibus.

On splinters of wood in the Forests. Natividade. Nov. 1839.

Pileus 2-3 lines across, reniform, smooth, membranaceous, brown; stem extremely short, lateral, brownish, pulverulent; gills about five, ventricose, pallid yellow, with their inter-

stices quite smooth. The hymenium, in perfect specimens, resembles that of *Stereum hirsutum*.

Closely related to *Ag. merulinus*, Mont., but differing in the colour of the pileus. There is also a peculiar appearance about the hymenium of this species, which is not easily expressed in words. It occurs also in Guiana, whence it has been sent by Schomburgk.

8. *Lentinus Lecomtei*, Fr. Ep. p. 388.

On a rotten tree. Arrial das Mercês, Minas Geraes. Oct. 1840, with *Lenzites applanata*.

9. *L. villosus*, Fr. Ep. p. 388.

Minas. Oct. 1840. Serra de Araripe. Prov. of Ceará. Answering exactly to the description of Fries in the *Epicrisis*. This species, which is one of the commonest of the genus, is generally regarded on the continent as *L. Berterii*, but it is certainly not the species characterised in the *Epicrisis*, though it may possibly be the plant of Sprengel. *Lentinus villosus*, Fr. has white distant gills, and curled bristles on the pileus; *Lentinus Berterii*, Fr. has, on the contrary, crowded cervino-pallid gills, and the bristles straight.

10. *L. Swartzii*, Berk. *L. crinitus*, Berk. in *Ann. of Nat. Hist.*, vol. 10, p. 370. Tab. 9, fig 2.

Brazil.

The species brought by Swartz from Jamaica, which I have described and figured from an authentic specimen in the place above cited, is what Fries has characterised as *L. crinitus*; but an inspection of the specimen of *Agaricus crinitus*, in the Linnean Herbarium, which is in very good condition, shows that the plant of Swartz is different. I have therefore named the present species after its original discoverer. I shall hope to take another opportunity of examining the synonyms of the plant of Linnæus, which is larger, and certainly the same with what Brown has figured in the *History of Jamaica*.

11. *L. tener*, Klotzsch. Fr. Ep. p. 389.

Organ Mountains.

This species approaches very near to the true *L. crinitus* and *L. Swartzii*. I suspect that Klotzsch has made some mistake as to the habitat, no such species from New Orleans existing in the herbarium of Sir W. Hooker. There is, however, the greatest difficulty in understanding Klotzsch's species of *Lentinus*, from his having named the species in the herbarium, differently from those which he has published in the *Linnæa*; and having transmitted to Fries the species so published, under wrong names. Nothing can settle the points of difficulty except an inspection of the Herbarium at Berlin, in which he informs us he has deposited specimens.

12. *L. crassipes*, n. s., pileo infundibuliformi ochraceo-cervino centro nigro-squamoso, versus marginem filis densis cervinis circinatis vestito; stipite brevi crasso badio minute squamuloso; lamellis pallido-albis, confertis decurrentibus postice anastomosantibus denticulatis.

Minas Geraes. Oct. 1840.

Pileus $2\frac{1}{4}$ inches broad, infundibuliform, ochraceous, fawn-coloured, cracked in the centre, and adorned with little black scales, formed of fasciculate hairs; towards the margin, clothed with dense crisped tawny flocci; margin slightly involute.

Stem short and thick, $\frac{3}{4}$ of an inch long, $\frac{1}{2}$ an inch thick, obese, bay brown, with a few minute scales.

Gills crowded, pallid, slightly denticulate, decurrent, anastomosing at the base.

Distinguished from the allied species, *L. crinitus* and *tener*, by its short thick stem, and other characters of less consequence.

13. *L. velutinus*, *Fr. Ep. p. 392*.

Minas Geraes.

The most beautiful species in the genus, but extremely variable in size.

14. *L. albidus*, n. s., albidus, cæspitosus; pileis excentricis, tenuibus subelongatis depressiusculis glabris; lamellis integerrimis acute decurrentibus; stipitibus gracilibus deorsum attenuatis albo-pruinatis glabris.

On a lime tree. Inficionado. Oct. 1840.

Cæspitose, dirty white; pileus $1\frac{1}{2}$ -2 inches broad excentric, sub-elongated, very slightly depressed behind, quite smooth, and free from striæ.

Stems $1\frac{1}{2}$ inch high, about 2 lines thick, more or less connate, firm, pruinose, attenuated below from their crowded habit.

Gills rather broad, acutely decurrent, quite entire.

This specimen approaches somewhat to *Lentinus friabilis* and *L. Sajor Caju*, but it is distinguished at once from the former, by its not being umbilicato-pervious, and from the latter, by its not being umbilicate or sub-infundibuliform, and by its long stem. The same species, or one very closely allied, occurs at the Cape of Good Hope, and I have seen what appears to be the same, from other quarters.

15. *L. submembranaceus*, n. s., albidus; pileo excentrico suborbiculari, demum subdepresso lobato-fisso, glabro margine submembranaceo; stipite deorsum subæquali cartilagineo-corticato rimosulo; lamellis latiusculis decurrentibus.

On a dead tree near Pinanga. Minas Geraes. Oct. 1840.

Gregarious, dirty white. Pileus $1\frac{1}{2}$ -4 inches broad, excentric orbicular smooth, at length more or less lobed and split, slightly depressed behind, but not umbilicate; margin extremely thin, and almost membranaceous.

Stem $1\frac{3}{4}$ of an inch long, 1-5 lines thick, nearly equal, sometimes, however, incrassated at the base, coated with a cartilaginous bark, in which are numerous minute fissures.

Gills rather broad, decurrent.

Differing from the foregoing in its thinner pileus, and generally equal cartilaginous, rimulose stem. It attains sometimes, a considerable size, but perfect specimens occur as small as *Lentinus albidus*, and are then with difficulty distinguished. There is no doubt, however, that the two species are really distinct.

16. *Lenzites applanata*, Fr. Ep. p. 404.

Goyaz. Feb. 1840. Arrial das Mercês, Minas Geraes.
On the banks of the Parahibana. Oct. 1840.

17. *Polyporus* (*Mesopus*) *lentus*, *Berk. Eng. Fl.*, vol. 5, Part 2, p. 134.

On a rotten stem. Arrial das Mercedes. Oct. 1840.

This appears to be precisely the same species which occurs in England, not unfrequently, on *Ulex Europæus*. There is not a single distinguishing character, at least, in the dry specimens.

18. *P.* (*Mesopus*) *similis*, n. s., pileo plano-infundibuliformi lento-coriaceo rigido glabro lævi margine ciliato; stipite deorsum incrassato velutino glabrescente; poris parvis pallidis angulatis; dissepimentis tenuissimis denticulatis.

On an old tree. Minas Geraes. Oct. 1840.

Pileus 1-1½ inch broad, plano-infundibuliform, of a tough coriaceous substance, rigid when dry, quite smooth except at the margin, which is ciliated with pale rigid bristles.

Stem $\frac{3}{4}$ -1 inch high, sometimes equal, in general attenuated below, clothed with very short velvety down, which at length vanishes, leaving the stem nearly smooth.

Pores small, pallid, angular, sometimes elongated; dissepiments extremely thin, more or less torn and denticulate. The colour of the pileus and stem is pallid umber, but is probably different in the recent plant.

This species is undoubtedly near to *Pol. brumalis*; from which it differs in its more infundibuliform pileus, its velvety root, squamulose stem, its pallid, not white pores, and other points. I have seen no specimens of *Pol. brumalis* which were not at once distinguishable from the present by a peculiar appearance about the pores. The whole habit is different from that of *Pol. Guianensis*, *Tricholoma apalus* and *gracilis*, with which it agrees in the ciliated margin, being a far less elegant species.

18. *P.* (*Mesopus*) *apalus*, n. s. pileo plano-umbilicato glaberrimo carnosolento submembranaceo azono, margine ciliato; stipite gracili æquali flexuoso rufo sericeo-glabro; poris parvis subæqualibus angulatis, dissepimentis tenuissimis.

On a rotten tree. Minas Geraes. Oct. 1840.

Pileus 1 inch broad, plano-umbilicate, extremely thin and delicate, so that the pores are visible through it, even, not the least scrobiculate, zoneless; margin laciniato-pilose.

Stem $1\frac{1}{4}$ inch high, $\frac{3}{4}$ of a line thick, rufous, flexuous, smooth, with a few adpressed silky fibrillæ.

Pores small, 1-80th of an inch in diameter, angular, nearly equal, much longer than the substance of the pileus; dissepiments extremely thin. The pores and pileus are of a more or less ochraceous tint. In the recent plant, they are probably nearly white.

This elegant species is allied to *P. Tricholoma* and *Guianensis*, but it differs from both in its less coriaceous substance, and from the former, in its smooth, not velvety stem.

Polyporus gracilis, Kl., again agrees with it in many points, and it has certainly a ciliated margin, though this character is so obscurely marked, that I had overlooked it, until my attention was called to the point, on comparing it with *Pol. Guianensis*, and *P. Tricholoma*. The pores, however, are extremely minute, and the stem is not above half as thick, and the pileus but half an inch broad.

19. *P. (Mesopus) calcigenus*, n. s., pileotenui coriaceo orbiculari umbilicato, margine plus minus depresso subtiliter velutino, demum glaberrimum polito rubro-castaneo zonato minutissime striato; stipite centrali radicante ruguloso subgracili crustaceo-corticato subtiliter velutino fusco intus molli fibroso; poris mediis longis angulatis dentatis intus pallidis.

Natividade, Goyaz. Nov.-Jan. On calcareous soil.

Piles $\frac{3}{4}$ -1 inch broad, thin coriaceous orbicular, umbilicate, with the margin depressed and extremely thin, or acute and repand; at first very minutely velvety, at length quite smooth and shining, of a red chestnut brown, concentrically zoned, and extremely minutely striate with innate fibres: substance tawny.

Stem central, 2 inches long, about 1 line thick, rooting at the base, but obtuse, tawny within, stuffed with spongy

spongy fibres, coated with a thin brownish, crustaceous bark, which is obscurely velvety.

Pores 1-2 lines or more long, $\frac{3}{8}$ of an inch broad, angular, with the dissepiments thick, of the same substance as the lower coat of the pileus, which is paler than the upper and more tawny portion. Some are singularly wrinkled within, but this character is not constant.

This is a most interesting addition to the vast genus *Polyporus*. It clearly belongs to the same section as *P. sacer*, but is distinguished from all the species of the section except that, by its larger pores, and from *Pol. sacer* by its whole habit and nature. If the genus *Trametes* be finally established, this species must be admitted into it.

20. *Pol. (Pleuropus) infernalis*, n. s. pileo flabelliformi integro vel sub-lobato postice depresso tenui acuto demum suberoso-coriaceo glaberrimo, lævi, basi exceptâ striato-ruguloso hepatico-nigro; stipite brevi laterali nigro sursum incrassato punctato pulverulento; hymenio brunneolo: poris minutis rotundis brevissimis; margine sterili.

On the stem of an old tree. Arrial das Mercês. Prov. of Minas Geraes. Oct. 1840.

Pileus $3\frac{1}{2}$ inches broad, flabelliform, quite entire, or slightly lobed and crenate, marginato-depressed behind, suberoso-coriaceous when dry; extremely smooth and even, except at the base, where it is pulverulent, and minutely rugulose and striate; of a black liver colour.

Stem $\frac{1}{2}$ -1 inch long, $\frac{1}{2}$ an inch thick, incrassated above, wrinkled longitudinally, and dotted with abortive pores, black, pulverulent, white within.

Pores extremely shallow, punctiform; hymenium brownish.

This very distinct species is allied to *Pol. varius* and *dictyopus*.

21. *P. (Pleuropus) luteus*, *Nees. v. Es. Fr. Ep. p. 445.*

A single specimen only, without any special locality.

22. *P. (Apus) australis*, *Fr. Ep. p. 464.*

Minas Geraes.

There is also a very beautiful *Polyporus* allied to *P. sulphu-*

reus, of a soft white substance within, externally smooth, and of a beautiful red-brown. As, however, the pores are not yet formed, and there is but a single specimen, I do not venture to name it.

23. *P. (Resupinatus) xylostromatoides*, n. s. albidus totus resupinatus; mycelio molli elastico intertexto demum porifero; poris parvis angulatis acie subintegrâ.

Minas Geraes. Oct. 1840. On rotten wood.

The mycelium exactly resembles a small thin portion of *Xylostroma giganteum*; white, closely interwoven, and elastic with no distinct border. This at length produces pores which are small, but perfectly visible to the naked eye, angular, with the dissepiments tolerably thick, and nearly entire. It at length becomes incorporated with the wood, and inseparable.

24. *Trametes occidentalis*, *Fr. Ep. p. 491.*

Minas Geraes.

The specimens differ greatly from the state first described by Klotzsch, but are connected with it by intermediate forms from Cuba, of which I have a specimen from Dr. Montagne, and others from Guiana, collected by Schomburgk. Mr. Gardner's specimens are very strongly zoned, imbricated, and subtriquetrous, with the substance more hard and corky.

25. *T. Hydnoides*, *Fr. Ep. p. 490.*

Minas Geraes.

26. *T. versatilis*, *Berk. in Hook. Journ.*

Var. *minor*, poris pallidis, mediis.

On a rotten tree. Minas Geraes.

The Brazilian specimens differ from those from the Philippines and New Orleans, merely in the size of the pores, and their paler colour. The clothing of the pileus is not altogether unlike that of a *Dictyonema*.

27. *Favolus Braziliensis*, *Fr. Ep. p. 498.*

On the rotten trunk of a tree. Minas Geraes. Oct. 1840.

28. *Stereum cyathiforme*, *Fr. Ep. p. 545.*

Natividade Prov. of Goyaz. Jan. 1840.

29. *S. nitidulum*, n. s. pileo infundibuliformi submembra-

naceo rigidiusculo crenato glabro nitidulo zonato brunneolo; stipite centrali tenui; hymenio albo.

On a rotten stick covered with sand, on the bank of Rio de Mauvel Alvez. Prov. of Goyaz. Oct. 1839.

Pileus about half an inch broad, infundibuliform, thin, submembranaceous, but rather rigid, brownish, with a tinge of red, marked with darker zones, smooth, shining.

Stem $\frac{1}{4}$ - $1\frac{1}{2}$ inch long, about 1 line thick. Hymenium, covering part only of the under surface, white.

30. *Dictyonema sericeum*, Mont. (sub *Dichonemate*, in *Bel. Voy. p.* 155.) *Thelephora sericea*, Swartz!

Organ mountains.

The specimens are in a high state of fructification, being covered, on the under side, with an ochraceous, much cracked hymenium, exactly like that of a *Stereum*. Precisely the same hymenium exists in *Dictyonema excentricum*, of which I have seen an authentic specimen, and which does not differ generically from *Dichonema*. The genus will come next to *Cora*, whose hymenium is similarly formed. *Dichonema æruginosum*, Nees v. Es. is apparently the same species. The margin is pale, in consequence of the *Calothrix* or *Scytonema* which accompanies it, not having grown so fast as the matrix.

31. *Nidularia plicata*, Fr. in *Linnæus*, vol. 5, p. 553.

On a dry bank. Organ mountains.

32. *Sphæria Hypoxylon*, Ehr.

Var. mucronata.

On the stem of an old tree. Arrayas, Prov. of Goyaz April 1841.

This variety has the form of *Sph. escharoides*, Berk., and appears to be, as nearly as possible, the same with what Schweinitz has figured under the name of *S. mucronata* in *Journ. Ac. Nat. Sc.: Phil.* vol. v. 1825. p. 5. tab. 1. fig. 1.

The stem is slender, $\frac{1}{4}$ to $\frac{1}{3}$ of an inch long. Head $\frac{1}{8}$ - $\frac{1}{4}$ of an inch long, 1 line thick, cylindrical, in general tipped with a short acute mucro.

33. *Geaster fimbriatus*, Fr. *Syst. Myc.* vol. 3, p. 16.

Rio Janeiro. A single specimen only.

34. *Hippoperdon crucibulum*, Mont. *Ann. d. Sc. Nat.* Feb. 1842.

Minas Geraes.

Of this species there are specimens in Sir W. J. Hooker's collection from New Orleans, and it was gathered by Gaudichaud in his last voyage.

35. *Antennaria pannosa*, n. s. thallo pannoso expanso; floccis erectis rigidiusculis primum moniliformibus, dein cylindricis, ramosis; ramulis attenuatis subalternatis.

On the leaves of a species of *Pogopetalum*. Chapada de N. S. d'Abadia, Prov. Goyaz. May 1840.

Hypo- and Epiphyllous; investing the leaves and stems with cloth-like black patches, consisting of erect branched flocci, which in the looser parts are distinguishable by the naked eye. Main branches, very irregular, often forming a right angle with the stem; ultimate ramuli more or less alternate, consisting of cylindrical, or but slightly swollen articulation from 1-3 times as long as broad. At the base are found a few moniliform threads, which have evidently sprung from capsules, but I have not been able to find the capsules themselves in a perfect state. There are also other more slender anastomosing filaments, which are apparently a sort of Mycelium.

The species is distinguished from the other described Epiphytous species, by its larger size, and equal articulations. It would probably, in the absence of perfect capsules, be referred by Corda to *Campsotrichum*, some of the species of which genus are probably true *Antennariæ*. The genus, though at first proposed by Link, in Schrader's *Neues Journal*, on very insufficient characters, founded upon an erroneous analysis, was well and accurately described by him in his continuation of Willdenow's *Species Plantarum*, whence, and from Greville's analysis of *Racodium cellare*, Fries has taken his characters. It is strange, therefore, that Corda should have given such a very insufficient illustration of the genus, if indeed, the two species figured by him, really belong to it. The characters are beautifully exhibited in a species from Juan Fernandez, noticed in *Flora Fernandésiana* as a form of *Cladosporium Fu-*

mago, with the symbol var? *Elongatum*, Mont. Dr. Montagne, is now however, satisfied that it is not only distinct, but that it belongs to the genus *Antennaria*, as characterised by Link and Fries, and as there is no satisfactory analysis, he has kindly transmitted sketches and specimens, with a view to the publication of the species under the name of *Antennaria Robinsonii*, Mont. and Berk., together with *Antennaria pannosa*, of which it has very much the habit, but the filaments are far more slender, and some of the articulations are moniliform, while in perfect specimens of *A. pannosa* all are cylindrical, or nearly so. I have little doubt that the capsules in *A. pannosa* are at first lateral, but I have not seen this with sufficient precision to allow of my giving a representation. The characters of *Ant. Robinsonii* then, will stand as follows:—thallo pannoso expanso; fibris tenuissimis elongatis ramosis; articulis æqualibus moniliformibusve; sporis lateralibus.

It is not necessary to compare the fructifying fibres with *Pleuropyxis*, which they greatly resemble in general habit, but the contents of the capsule in that genus are quite different.

TAB. XXIV. Fig. 1.

a. portion of *Antennaria pannosa*, slightly magnified, showing the perfect erect branched fibres, and the more procumbent young moniliform fibres at their base.

b. portions of the fibres, moniliform threads, and anastomosing mycelium, highly magnified.

TAB. XXIV. Fig. 2.

a. portion of *Antennaria Robinsonii*, highly magnified, showing the usual state of the fibres, and one in which all the upper articulations are moniliform.

b. ramuli with peridia, which are mostly lateral, but often arise from a swollen articulation.

c. evolution of a spore.

d. ditto, less magnified; in this case, the contents of the spore form a lobed gelatinous mass, which, with the inclosed branched colourless threads, resembles very much a *Chætophora*.

e. threads from a germinating spore, showing the inarticulate slender threads of the centre, and the dichotomous moniliform threads which arise from them. These gradually increase in size, acquire a brown colour, and at length assume the characters of the perfect plant.

f. a portion, less regular, very highly magnified.

g. a spore, giving out threads from the cells of the peridium.

h. a portion of the same, more highly magnified.

36. *Pterula plumosa*, Fr. *Clavaria plumosa* Schwein. n. 1089.

Clay banks near Maranham. June 1841.

The specimens, compared with one from Schweinitz, present but little difference. They differ, indeed, more from the technical characters, as given by Fries and Schweinitz, having the ultimate ramuli, for the most part, simply elongated, but amongst them are some which are dilated above, and almost plumose. In the greater number of individuals from a compressed stem, arise a large quantity of branches, disposed, in well grown specimens, in a palmate manner, with the ultimate ramuli half as high as the whole plant, and extremely acute. Some crowded individuals show little of the palmate arrangement. Tufts about 1 inch high.

37. *Stilbum lateritium*, Berk. in *Ann. of Nat. Hist. vol 4, p. 291, tab. 8.*

On sticks. Maranham. June 1841.

The specimens are not so inclined to become fasciculate as those procured by Mr. Darwin.

38. *S. stromaticum*, n. s. gregarium ϵ stromate nigro inæquali; stipitibus compressis striatulis nigris; capitulis aureis globosis; sporis minutissimis subglobosis.

On a rotten tree, with *Ag. ferruginus* and *mitiuseculus*. Minas Geraes.

Forming effused patches on the bark, springing from a black, smooth, undulated stroma, which has exactly the structure of a *Sclerotium*, consisting of angular cells, each of which contains a nucleus, those of the cuticle being darker and smaller. Stems distinct, $1\frac{1}{2}$ -3 lines high, $\frac{1}{8}$ of an inch thick, compressed, black, consisting of very fine fibres, externally slightly striate, surmounted by a yellow globule, which is coated with very numerous extreme minute subglobose spores.

I know of no species very nearly allied to this. It resembles most, perhaps, *S. clavulatum*, Mont., but differs in many respects. It is certainly one of the most striking of the genus.

39. *Cladosporium herbarum*, Lk.

On *Lenzites applanata*. Minas Geraes. Oct. 1840.

[This is not to be considered as at all a perfect list of Fungi observed by Mr. Gardner, who informs me that if he had had time, he could have collected, at least, ten times the number.]

BOTANICAL NOTES, made in the Republic of EL ECUADOR, (Quito, Guayaquil, and Asuay), by WILLIAM JAMESON,* Esq., late Professor of Natural History and Botany, in the University of Quito.

RANUNCULACEÆ.

Ranunculus Peruvianus (No. 1) is found on the elevated pasture grounds of the Andes, between 12,000 and 13,000 feet; *R. Guzmanni*, (No. 2) at, or near the snow limit. The former has rather an extensive range, (from Cerro de Pasco, in

* This talented gentleman, who, during his long residence in Columbia, has largely contributed to our Herbarium and to the pages of this Journal, has at length been persuaded by us, to transmit a dozen sets of the plants of these interesting regions, which have been collected and numbered, and which will be offered for sale, at £2 the 100 species.